Application No.: 09/839,532   6   Docket No.: 09469/000K834-US0

REMARKS

Pending Claims

Claims 1, 2, 6-9, and 11-13 are pending.

Claim Rejections - 35 USC §102

Claims 1 and 2 have been rejected under 35 USC §102(b) as being anticipated by US Patent No. 5,003,192 to Beigel. However, Applicants submit that the presently claimed invention is not anticipated for at least the following reason. Claim 1 recites as follows:

> 1 (previously presented): A power on/off circuit apparatus, comprising:
> a power on/off circuit for controlling an on/off supply of power to electronic components from an external power source;
> a microcomputer connected to the power on/off circuit for controlling said power on/off circuit based on an operation input of a power switch;
> **a reset circuit for giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer; and**
> a non-volatile memory for storing power on/off information just before said power switch is operated, the power on/off circuit connected to the non-volatile memory for controlling the on/off supply of power to the non-volatile memory, and **said power switch being connected to said reset terminal.**

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). At least the above bolded features are expressly or inherently described in Beigel.

First, Applicants respectfully submit that Beigel does not disclose, teach, or suggest a power switch, which is a part of a power on/off circuit that is connected to a microcomputer, being connected to a reset terminal as set forth in claim 1. By having the power switch connected to the reset terminal of the microcomputer, the microcomputer can be reset without executing a hard shutdown such as unplugging and plugging the power cord (see substitute specification, page 7, lines 1 to 19).

{W:\09469\000K834000\00502028.DOC ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ }

In the Office Action, it is stated that Fig. 3, element 50, and column 4, lines 3-8 teach the feature of claim 1.

However, the element 50 in Fig. 3 refers to EE PROMs. No where does Fig. 3 show a power switch connected to a reset terminal. The only line that emanates from the element 50 goes to the logic circuit 54.

Furthermore, the cited passage (column 4, lines 3-8) of Beigel states as follows:

> The difference in the FIG. 2 embodiment from what is shown in FIG. 1 is the presence of the non-volatile memory 30. The non-volatile memory 30 preserves (or maintains) the state of the FF 22 so that when power is lost and restored, the AC power switch assumes the same state it was in prior to power interruption.

The above passage says nothing about a power switch connected to a reset terminal. In fact, it states that the non-volatile memory 30 preserves the state of FF 22 so that the AC power switch assumes the same state prior to the power interruption. From the passage, the AC power maintains the same state prior to the power interruption; the passage does not expressly or inherently disclose, teach, or suggest a power switch being connected to a reset terminal.

It is clear by case law that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Here, the prior art clearly lacks at least one of the element, and therefore, for at least that reason, claim 1 is not anticipated by the cited prior art.

Furthermore, Beigel fails to disclose, teach, or suggest a reset circuit for sending signal to a reset terminal as set forth in claim 1. Claim 1 states, "a reset circuit for giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer."

In the Office Action, Fig. 3, element 45 and column 4, lines 34-54 of Beigel are stated as teaching the reset circuit. However, element 45 is a power interrupt sense that is connected to a logic 54. Fig. 3 does not show the power interrupt sense connected to a reset terminal.

{W:\09469\000K834000\00502028.DOC ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ }

Furthermore, column 4, lines 34-54 of Beigel states the following:

> The power interrupt sensor or power-down detector 45 must reliably sense loss of the AC power at the input 10 to the transformer 11. There are several ways in which this can be accomplished within the spirit of my invention. For example, one way is to sense a reduction in the unregulated supply voltage at, for example, node 46. Another way is to sense interruption of the clock signal at node 43 for a specified time interval. In the latter case, the simplest way to achieve this result is to provide an internal timer circuit which is reset by one or more clock cycles. If no resetting signal is received, it is assumed that the failure of the clock signal to appear is due to a power outage, and an output signal appears on line 48. This output signal generated by the power interrupt sense circuit 45 is used to disable power output to the LED to conserve operating power within the control circuit, and to write the state of the RS FF 22 into an electrically erasable programmable read-only memory (EEPROM) 50 which is a non-volatile memory element and serves to preserve the current state (ON/OFF) of the AC power switch.

The passage mentions an internal timer circuit which is reset by one or more clock cycles. But note that the power interrupt sensor 45 is configured to sense interruption of the clock signal at node 43 by an internal timer circuit, which by implication is disposed _within_ the power interrupt sensor, and therefore, a reset terminal must also be located within the power interrupt sensor. That is, the internal timer circuit with the reset terminal is located within the power interrupt sensor 45 and not at the logic 54. In claim 1, the reset terminal is a reset terminal of the microcomputer and not of the reset circuit. For at least this reason, the power interrupt sensor 45 is different from the reset circuit.

Furthermore, in Beigel, the resetting signal is received by the power interrupt sensor 45 from the clock 42 at node 43. In claim 1, the reset circuit is designed to send the reset signal to the reset terminal of the microcomputer. Clearly, the power interrupt sensor 45 is different from the reset circuit of claim 1.

Even if one element is not expressly or inherently described in the prior art, then that prior art does not anticipate the claimed invention. For at least the foregoing reasons, the reset circuit of claim 1 is not expressly or inherently shown by the power interrupt sensor 45. Beigel does not anticipate claim 1 for at least the above reasons.

Still further, Beigel does not disclose, teach or suggest a reset terminal AND a power switch both connected to the same reset terminal of a microcomputer. Claim 1 states, ""a reset circuit for

{W:\09469\000K834000\00502028.DOC ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ }

giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer" and "said power switch being connected to said reset terminal." Together, it is clear that the reset circuit and the power switch are connected to the same reset terminal. No such teaching is provided in Beigel. Beigel does not show the power interrupt sensor 45 or the power switch connected to a reset terminal of the logic 54, let alone both of them being connected to the same reset terminal. For at least this reason, claim 1 is not anticipated by Beigel.

Each of the reasons above is enough to overcome the anticipation rejection. Therefore, Applicants respectfully request that the §102 rejection against claim 1 be withdrawn.

Claim 2 depends from claim 1, and therefore, for at least the same reason as claim 1, claim 2 is also not anticipated.

Claim Rejection – 35 USC §103

Claims 6-8 and 12 have been rejected under 35 USC §103(a) as being unpatentable over US Patent to Beigel in view of US Patent. 6,625,739 to Kobayashi.

Similar to Beigel, Kobayashi also does not disclose, teach, or suggest a reset circuit or a power switch connected to a reset terminal of a microcomputer (there elements of claims 6, 8, and 12 are similar to those in claim 1). See the previous section for the reasons why Beigel does not show these elements. Kobayashi teaches a system adapted to perform a hard power shutdown regardless of the status of the computer:

> Under the above circumstances, therefore, it is an object of the present invention to provide a computer having a power forced shutdown function, which can shut down the computer power in a simple structure and without depending on the status of the computer.

(Column 2, lines 20 to 24)

Note that Kobayashi's power switch 46 is connected to the power supply controller 47 to execute a hard shutdown. The power switch 46 is not connected to the CPU 11 or to a reset terminal of the CPU.

Therefore, Beigel together with Kobayashi does not disclose, teach, or suggest a reset circuit or a power switch of claims 6, 8, and 12. A person of ordinary skill in the art would not have found the invention of claims 6, 8, and 12 obvious from the cited prior art references.

Because claims 7 and 9 depend from claims 1 and 8, respectively, these claims are also not obvious from the cited prior art references for at least the same reasons as their base claims.

Claims 9, 11, and 13 have been rejected under 35 USC §103(a) as being unpatentable over Beigel in view of Kobayashi, and in further view of US Patent No. 5,077,551 to Saitou.

Saitou's invention is directed to "a photosensor unit for detecting the position of the display panel with respect to the main body so as to cut off power supply to the display panel when the display panel is located at the first position, and to allow power supply to the display panel when the display panel is located at the second position." (Abstract)

Similar to Beigel and Kobayashi, Saitou also does not disclose, teach, or suggest a reset circuit or a power switch connected to a reset terminal of a microcomputer.

Because claims 9 and 11 depend from base claims which have the reset circuit and the power switch features not taught by Beigel, Kobayashi and Saitou, these claims are also not obvious from the cited references for at least the same reasons as their base claims.

In the Office Action on page 7, it is stated that "[b]ut Beigel teaches a reset circuit [45] that givers reset signal to the microcomputer when a power is supplied to said microcomputer [col. 4, lines 35-54]. As long as power is supplied to the microcomputer, a rest signal is generated for an internal timer circuit, substantially as claimed." This interpretation is incorrect. As explained under the heading of "Claim Rejections – 35 USC §102," the power interrupt sensor 45 (alleged reset

{W:\09469\000K834000\00502028.DOC ||||||||||||||||||||||||||||||| }

Application No.: 09/839,532   11   Docket No.: 09469/000K834-US0

circuit) does not give reset signals to the logic 54 (alleged microcomputer). Rather the cited passage in question indicates that the power interrupt sensor 45 <u>receives</u> a reset signal from the clock 42 through the node 43 by an internal timer circuit within the power interrupt sensor 45 to sense an interruption of power.

The power interrupt sensor 45 does send out an output signal when its internal timer circuit does not receive a reset signal but this output signal is provided to the logic 54 to disable the power output to the LED to conserve power. It is not a reset signal of a microcomputer.

The Office Action on page 7 further states that "it is noted that features upon which applicants relies (i.e. determining logic section hang-up and retaining the power switch state when there the logic section hangs up) are not recited in the rejected claim(s)." The explanation was provided to show that Beigel suffers from the same problems as a conventional circuit apparatus and to show further that at least the present invention does not suffer from the problem of the conventional circuit apparatus as a consequence of having the claimed features of the present invention. A prior art reference must be considered in its entirety, i.e., as a <u>whole</u>, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). A careful reading will show that at no point on page 8 of Applicants' December 22, 2004 response, did Applicants impute the features of "determining logic section hang-up" or "retaining the power switch state" used to describe Beigel's invention into the claims of the present application.

For at least the foregoing reasons, all pending claims are believed to be allowable over the cited prior art.

{W:\09469\000K834000\00502028.DOC ▦▦▦▦▦▦▦▦▦▦▦▦▦▦ }

PAGE 15/16 * RCVD AT 8/18/2005 4:51:49 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/34 * DNIS:2738300 * CSID:212 753 6237 * DURATION (mm-ss):05-34

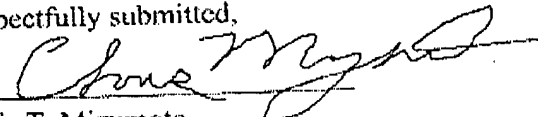Application No.: 09/839,532   12   Docket No.: 09469/000K834-US0

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: August 18, 2005   Respectfully submitted,

                                                By _____
                                                Chris T. Mizumoto
                                                   Registration No.: 42,899
                                                DARBY & DARBY P.C.
                                                P.O. Box 5257
                                                New York, New York 10150-5257
                                                (212) 527-7700
                                                (212) 753-6237 (Fax)
                                                Attorneys/Agents For Applicant

{W:\09469\000K834000\00502028.DOC ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ }